CLAIMS

1. A method of controlling charging a service in a telecommunication system comprising at least a first layer and a second layer, both of which are usable for transmitting a service, a first layer charging function, a second layer charging function and at least one network node collecting charging data on the first layer, **characterized** by

receiving (202) a first piece of information indicating that the first layer charging data are attended to by the second layer charging function; and

transmitting (205), in response to the first piece of information, to the network node collecting first layer charging data, information in a charging instruction indicating that charging data are not transmitted to the first layer charging function.

2. A method as claimed in claim 1, **characterized** by

waiting (203) a predetermined time for the first piece of information; and

if the first piece of information is not received during the predetermined time, transmitting (204), to the network node collecting first layer charging data, information in a charging instruction indicating that charging data are transmitted to the first layer charging function.

3. A method of controlling charging for a service in a telecommunication system comprising at least a first layer and a second layer, both of which are usable for transmitting a service, a first layer charging function, a second layer charging function and at least one network node collecting charging data on the first layer, the method comprising:

transmitting (302) information to the network node in a first charging instruction indicating that charging data are transmitted to the first layer charging function;

characterized by

receiving (303) a first piece of information indicating that the first layer charging data are attended to by the second layer charging function; and

cancelling (304) the first charging instruction in response to the first piece of information.

4. A method of controlling charging for a service in a telecommunication system comprising at least a first layer and a second layer, both of which are usable for transmitting a service, a first layer charging function, a second layer charging function and at least one network node collecting charg-

ing data on the first layer, the method comprising:

transmitting (502) information to the network node in a first charging instruction indicating that charging data are transmitted to the first layer charging function;

characterized by

receiving (503) a first piece of information indicating that the first layer charging data are attended to by the second layer charging function; and

ignoring (504), in response to the first piece of information, in the first layer charging function at least partly the charging data coming from the first layer.

5. A method of controlling charging for a service in a telecommunication system comprising at least a first layer and a second layer, both of which are usable for transmitting a service, a first layer charging function, a second layer charging function and at least one network node collecting charging data on the first layer, the method comprising:

transmitting (402) information to the network node in a first charging instruction indicating that charging data are transmitted to the first layer charging function;

characterized by

receiving (403) a first piece of information indicating that the first layer charging data are attended to by the second layer charging function; and

transmitting (404), in response to the first piece of information, a second charging instruction to the network node collecting charging data.

6. A method as claimed in claim 5, **characterized** by further cancelling the first charging instruction before the transmission of the second charging instruction.

7. A method as claimed in any one of the preceding claims, **characterized** by using the method for online charging.

8. A method as claimed in any one of the preceding claims, **characterized** by the first layer being a bearer layer and the second layer an application layer.

9. A method as claimed in any one of claims 1 to 7, **characterized** by the first layer being an application layer and the second layer a bearer layer.

10. A telecommunication system (1) comprising at least

a first layer (2) and a second layer (3), both of which are arranged to

transmit a service;

at least one network node (SGSN) arranged to collect charging data on the first layer;

a billing domain (4) comprising at least a first layer charging function (CF1)for controlling charging on the first layer and a second layer charging function (CF2) for controlling charging on the second layer;

characterized in that

the billing domain (4) is configured to transmit, to the first layer charging function (CF1), a first piece of information indicating that the first layer charging data are attended to by the second layer charging function (CF2) in response to the first layer charging data being attended to by the second layer charging function;

the first layer control function (CSE) is configured to receive the first piece of information and to transmit, in response to the first piece of information, to the network node (SGSN), information in a first charging instruction indicating that the charging data are not transmitted to the first layer charging function (CF1); and

the network node (SGSN) is configured not to transmit charging data to the first layer charging function (CF1) in response to the first charging instruction.

11. A telecommunication system as claimed in claim 10, **characterized** in that

the first layer charging function (CF1) is configured to wait a predetermined time for the first piece of information and, in response to not receiving the first piece of information during the predetermined time, to transmit, to the network node (SGSN), information in a second charging instruction indicating that the charging data are transmitted to the first layer charging function (CF1); and

the network node (SGSN) is configured to transmit charging data to the first layer charging function (CF1) in response to the second charging instruction.

12. A telecommunication system (1) comprising at least

a first layer (2) and a second layer (3), both of which are arranged to transmit a service;

at least one network node (SGSN) arranged to collect charging data on the first layer;

a billing domain (4) comprising at least a first layer charging function (CF1) for controlling charging on the first layer and for transmitting a first charging instruction to the network node, the instruction indicating that the charging data are transmitted to the first layer charging function (CF1) and

a second layer charging function (CF2) for controlling charging on the second layer;

characterized in that

the billing domain (4) is configured to transmit, to the first layer charging function (CF1), a first piece of information indicating that the first layer charging data are attended to by the second layer charging function (CF2) in response to the first layer charging data being attended to by the second layer charging function;

the first layer charging function (CF1) is configured to receive the first piece of information and, in response to the first piece of information, to cancel the first charging instruction transmitted to the network node (SGSN); and

the network node (SGSN) is configured not to transmit charging data to the first layer charging function (CF1) in response to the cancellation of the first charging instruction.

13. A telecommunication system (1) comprising at least

a first layer (2) and a second layer (3), both of which are arranged to transmit a service;

at least one network node (SGSN) arranged to collect charging data on the first layer;

a billing domain (4) comprising at least a first layer charging function (CF1) for controlling charging on the first layer and for transmitting a first charging instruction to the network node, the instruction indicating that the charging data are transmitted to the first layer charging function (CF1) and a second layer charging function (CF2) for controlling charging on the second layer;

characterized in that

the billing domain (4) is configured to transmit, to the first layer charging function (CF1), a first piece of information indicating that the first layer charging data are attended to by the second layer charging function (CF2) in response to the first layer charging data being attended to by the second layer charging function; and

the first layer charging function (CF1) is configured to receive the first piece of information and, in response to the first piece of information, to ignore at least partly the charging data received from the network node (SGSN).

14. A telecommunication system (1) comprising at least

a first layer (2) and a second layer (3), both of which are arranged to transmit a service;

at least one network node (SGSN) arranged to collect charging data on the first layer;

a billing domain (4) comprising at least a first layer charging function (CF1) for controlling charging on the first layer and for transmitting a first charging instruction to the network node, the instruction indicating that the charging data are transmitted to the first layer charging function (CF1)and a second layer charging function (CF2) for controlling charging on the second layer;

characterized in that

the billing domain (4) is configured to transmit, to the first layer charging function (CF1), a first piece of information indicating that the first layer charging data are attended to by the second layer charging function (CF2) in response to the first layer charging data being attended to by the second layer charging function;

the first layer charging function (CF1) is configured to receive the first piece of information and, in response to the first piece of information, to transmit a second charging instruction to the network node (SGSN); and

the network node (SGSN) is configured to replace the first charging instruction with the second charging instruction.

15. A telecommunication system (1) as claimed in claim 14, **characterized** in that the first layer charging function (CF1) is configured to cancel the first charging instruction before transmitting the second charging instruction.

16. A telecommunication system as claimed in any one of claims 10 to 15, **characterized** in that

the billing domain (4) is configured to transmit, to the first layer charging function (CF1), as a first piece of information, information indicating whether or not the first layer charging data are attended to by the second layer charging function (CF2) in response to the second layer charging function hav-

ing received a request associated with charging control; and

the first layer charging function (CF1) is configured to check the information and to interpret it as the first piece of information only if the information indicates that the first layer charging data are attended to by the second layer charging function.

17. A telecommunication system as claimed in any one of claims 10 to 16, **characterized** in that the second layer charging function (CF2) is configured to send the first piece of information.

18. A telecommunication system as claimed in any one of claims 10 to 16, **characterized** in that the billing domain (4) further comprises a correlation function (CoF) which is configured to send the first piece of information.

19. A network node (CSE) in a telecommunication system comprising at least a first layer and a second layer, both of which are usable for transmitting a service, the network node comprising at least control means for controlling the first layer charging, **characterized** in that

the network node (CF1) further comprises reception means for receiving a first piece of information indicating that the first layer charging data are attended to by a second layer; and

the control means are arranged to be responsive to the reception means and, in response to the first piece of information, to transmit, to a network node collecting charging data in the first layer, in a first charging instruction, information indicating that the charging data are not transmitted to the first layer charging function.

20. A network node (CF1) in a telecommunication system comprising at least a first layer and a second layer, both of which are usable for transmitting a service, the network node comprising at least control means for controlling the first layer charging and, in response to a request associated with controlling of the first layer charging, for transmitting a first charging instruction to a network node collecting charging data in the first layer, the instruction indicating that the charging data are transmitted to the first layer charging function, **characterized** in that

the network node (CF1) further comprises reception means for receiving a first piece of information indicating that the first layer charging data are attended to by the second layer; and

the control means are arranged to be responsive to the reception

means and to cancel the first charging instruction transmitted to the network node collecting charging data in the first layer.

21. A network node (CF1) in a telecommunication system comprising at least a first layer and a second layer, both of which are usable for transmitting a service, the network node comprising at least control means for controlling the first layer charging and, in response to a request associated with controlling of the first layer charging, for transmitting a first charging instruction to a network node collecting charging data in the first layer, the instruction indicating that the charging data are transmitted to the first layer charging function, **characterized** in that

the network node (CF1) further comprises reception means for receiving a first piece of information indicating that the first layer charging data are attended to by the second layer; and

the control means are arranged to be responsive to the reception means and to give an instruction to a first layer charging means to ignore at least partly the charging data received from the network node collecting the charging data.

22. A network node (CF1) in a telecommunication system comprising at least a first layer and a second layer, both of which are usable for transmitting a service, the network node comprising at least control means for controlling the first layer charging and, in response to a request associated with controlling of the first layer charging, for transmitting a first charging instruction to a network node collecting charging data in the first layer, the instruction indicating that the charging data are transmitted to the first layer charging function, **characterized** in that

the network node (CF1) further comprises reception means for receiving a first piece of information indicating that the first layer charging data are attended to by the second layer; and

the control means are arranged to be responsive to the reception means and to transmit a second charging instruction replacing the first charging instruction to the network node (collecting charging data in the first network layer.

23. A network node (CF2) in a telecommunication system comprising at least a first layer and a second layer, both of which are usable for transmitting a service, **characterized** in that

the network node is configured to send to a charging function of the

first layer a first piece of information indicating that first layer charging data are attended to by the second layer in response to the first layer charging data being attended to by the second layer.